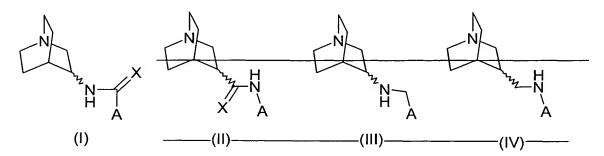
This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (Currently Amended): A compound of Formula I Formulas I, II, III, or IV:



wherein

A is an indazolyl, benzothiazolyl, or isobenzothiazolyl group according to subformula (a) subformulas (a) to (c), respectively,

X is O or S;

- R<sup>1</sup> is H, F, Cl, Br, I, OH, CN, nitro, NH<sub>2</sub>, alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, cycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, cycloalkoxy having 3 to 7 carbon atoms, cycloalkylalkoxy having 4 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;
- R<sup>2</sup> is H, alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, or cycloalkylalkyl having 4 to 7 carbon atoms;
- R<sup>3</sup>— is H, F, Cl, Br, I, OH, CN, nitro, NH<sub>2</sub>, alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, eyeloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, eyeloalkylalkoxy having 4 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;
- R<sup>4</sup>— is H, F, Cl, Br, I, OH, CN, nitro, NH<sub>2</sub>, alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, eycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, cycloalkylalkoxy having 4 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group

independently has 1 to 4 carbon atoms, Ar or Het;

R<sup>5</sup>— is H, F, Cl, Br, I, OH, CN, nitro, NH<sub>2</sub>, alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, eyeloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, eyeloalkoxy having 3 to 7 carbon atoms, cycloalkylalkoxy having 4 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;

Ar is an aryl group containing 6 to 10 carbon atoms which is unsubstituted or substituted one or more times by alkyl having 1 to 8 <u>carbon</u> © atoms, alkoxy having 1 to 8 <u>carbon</u> © atoms, halogen, dialkylamino wherein the alkyl portions each have 1 to 8 <u>carbon</u> © atoms, amino, cyano, hydroxyl, nitro, halogenated alkyl having 1 to 8 <u>carbon</u> © atoms, halogenated alkoxy having 1 to 8 <u>carbon</u> © atoms, hydroxyalkyl having 1 to 8 <u>carbon</u> © atoms, alkenyloxy having 3 to 8 <u>carbon</u> © atoms, alkylthio having 1 to 8 <u>carbon</u> © atoms, alkylsulphinyl having 1 to 8 <u>carbon</u> © atoms, alkylsulphonyl having 1 to 8 <u>carbon</u> © atoms, monoalkylamino having 1 to 8 <u>carbon</u> © atoms, cycloalkylamino wherein the cycloalkyl group has 3 to 7 <u>carbon</u> © atoms and is optionally substituted, arylthio wherein the aryl portion contains 6 to 10 carbon atoms and is optionally substituted, arylthio wherein the aryl portion contains 6 to 10 carbon atoms and is optionally substituted, cycloalkyloxy wherein the cycloalkyl group has 3 to 7 <u>carbon</u> © atoms and is optionally substituted, sulfo, sulfonylamino, acylamido, acyloxy or combinations thereof; and

Het is a heterocyclic group, which is fully saturated, partially saturated or fully unsaturated, having 5 to 10 ring atoms in which at least 1 ring atom is a N, O or S atom, which is unsubstituted or substituted one or more times by halogen, aryl having 6 to 10

carbon atoms and is optionally substituted, alkyl having 1 to 8 <u>carbon</u>  $\leftarrow$  atoms, alkoxy having 1 to 8 <u>carbon</u>  $\leftarrow$  atoms, cyano, trifluoromethyl, nitro, oxo, amino, monoalkylamino having 1 to 8 <u>carbon</u>  $\leftarrow$  atoms, dialkylamino wherein each alkyl group has 1 to 8 <u>carbon</u>  $\leftarrow$  atoms, or combinations thereof; or

a pharmaceutically acceptable salt thereof,

wherein if the compound exhibits chirality it can be in the form of a mixture of enantiomers such as a racemate or a mixture of diastereomers, or can be in the form of a single enantiomer or a single diastereomer, and

wherein when said compound is of Formula I the indazolyl group of group A is attached via its 3, 4, or 7 position, the benzothiazolyl group of group A is attached via its 4 or 7 position, or the isobenzothiazolyl group of group A is attached via its 3, 4, or 7 position.

2. (Currently Amended): A compound according to claim 1, wherein said compound is of formulas Ia, Ib, or Ie, If, Ii, Ij, Ik, or Io:

## wherein X is O.

- 3. (Cancelled):
- 4. (Cancelled):
- 5. (Cancelled):
- 6. (Currently Amended): A compound according to Formula I' Formulae I' IV':

wherein

A is an indazolyl or benzothiazolyl according to subformula (a) subformulas (a) to (b), respectively,

(a) 
$$R^1$$
  $N$  -or-

- R<sup>1</sup> is H, F, Cl, Br, I, OH, CN, nitro, NH<sub>2</sub>, alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, cycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, cycloalkoxy having 3 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydoxyalkyl having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;
- R<sup>2</sup> is H, alkyl having 1 to 4 carbon atoms, cycloalkyl having 3 to 7 carbon atoms, or cycloalkylalkyl having 4 to 7 carbon atoms;

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- R<sup>3</sup>— is H, F, Cl, Br, I, OH, CN, nitro, NH<sub>2</sub>, alkyl having 1 to 4 carbon atoms, fluorinated alkyl having 1 to 4 carbon atoms, cycloalkylalkyl having 4 to 7 carbon atoms, alkoxy having 1 to 4 carbon atoms, cycloalkoxy having 3 to 7 carbon atoms, alkylthio having 1 to 4 carbon atoms, fluorinated alkoxy having 1 to 4 carbon atoms, hydroxyalkoxy having 2 to 4 carbon atoms, monoalkylamino having 1 to 4 carbon atoms, dialkylamino wherein each alkyl group independently has 1 to 4 carbon atoms, Ar or Het;
- is an aryl group containing 6 to 10 carbon atoms which is unsubstituted or Ar substituted one or more times by alkyl having 1 to 8 <u>carbon</u> € atoms, alkoxy having 1 to 8 carbon € atoms, halogen, dialkylamino wherein the alkyl portions each have 1 to 8 carbon € atoms, amino, cyano, hydroxyl, nitro, halogenated alkyl having 1 to 8 carbon € atoms, halogenated alkoxy having 1 to 8 carbon € atoms, hydroxyalkyl having 1 to 8 carbon  $\in$  atoms, hydroxyalkoxy having 2 to 8 carbon € atoms, alkenyloxy having 3 to 8 carbon € atoms, alkylthio having 1 to 8 carbon  $\in$  atoms, alkylsulphinyl having 1 to 8 carbon  $\in$  atoms, alkylsulphonyl having 1 to 8 carbon € atoms, monoalkylamino having 1 to 8 carbon € atoms, cycloalkylamino wherein the cycloalkyl group has 3 to 7 carbon E atoms and is optionally substituted, aryloxy wherein the aryl portion contains 6 to 10 carbon atoms and is optionally substituted, arylthio wherein the aryl portion contains 6 to 10 carbon atoms and is optionally substituted, cycloalkyloxy wherein the cycloalkyl group has 3 to 7 carbon © atoms and is optionally substituted, sulfo, sulfonylamino, acylamido, acyloxy or combinations thereof; and
- Het is a heterocyclic group, which is fully saturated, partially saturated or fully unsaturated, having 5 to 10 ring atoms in which at least 1 ring atom is a N, O or S atom, which is unsubstituted or substituted one or more times by halogen, aryl

having 6 to 10 carbon atoms and is optionally substituted, alkyl having 1 to 8  $\underline{\text{carbon}} \in \text{atoms}$ , alkoxy having 1 to 8  $\underline{\text{carbon}} \in \text{atoms}$ , cyano, trifluoromethyl, nitro, oxo, amino, monoalkylamino having 1 to 8  $\underline{\text{carbon}} \in \text{atoms}$ , dialkylamino wherein each alkyl group has 1 to 8  $\underline{\text{carbon}} \in \text{atoms}$ , or combinations thereof; or

a pharmaceutically acceptable salt thereof,

wherein if the compound exhibits chirality it can be in the form of a mixture of enantiomers such as a racemate or a mixture of diastereomers, or can be in the form of a single enantiomer or a single diastereomer, and

wherein the indazolyl group of subformula (a) is attached to the remainder of the compound via its 3, 4 or 7 position.

7. (Currently Amended): A compound according to claim 6, wherein said compound is of formula I'a, <u>I'b or I'e</u> <del>Ib, Ie, If, ot Ii</del>:

- 8. (Cancelled):
- 9. (Cancelled):
- 10. (Cancelled):
- 11. (Previously Presented): A compound according to claim 1, wherein R<sup>1</sup> is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl.
- 12. (Previously Presented): A compound according to claim 1, wherein R<sup>2</sup> is H, methyl, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl.
  - 13. (Cancelled):
- 14 (Previously Presented): A compound according to claim 1, wherein R<sup>1</sup> is H, F, Cl, Br, methyl, methoxy, or amino.
- 15. (Previously Presented): A compound according to claim 1, wherein R<sup>2</sup> is H or methyl.

- 16. (Cancelled):
- 17. (Cancelled):
- 18. (Cancelled):
- 19. (Currently Amended): A compound according to claim <u>1</u> <del>17</del>, wherein R<sup>1</sup> is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl, <u>and</u> R<sup>2</sup> is H, methyl, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl, and R<sup>3</sup> is H, F, Cl, Br, 2-thiophenyl, 3-thiophenyl, 3-furyl, or phenyl.
  - 20. (Cancelled):
- 21. (Currently Amended) A compound according to claim 1, wherein said compound is selected from:
- N ((3R)-1-Azabicyclo[2.2.2]oct-3-yl)benzo[d]isothiazole-3-carboxamide,
- N ((3S)-1-Azabicyclo[2.2.2]oct-3-yl)benzo[d]isothiazole-3-carboxamide,
- N-(1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-3-carboxamide,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-3-carboxamide,
- N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-3-carboxamide,
- 1-Methyl-1H-Indazole-3-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl,
- (R) 1-Methyl-1H-Indazole-3-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-vl,
- (S) 1-Methyl-1H-Indazole-3-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)benzo[d]isothiazole-3-carboxamide,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5 (methoxy)benzo[d]isothiazole-3-carboxamide,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)-1H-indazole-3-carboxamide,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(cyclopropyl)-1H-indazole-3-carboxamide,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(furan-3-yl)-1H-indazole-3-carboxamide,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(phenyl)-1H-indazole-3-carboxamide,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1H-indazole-3-carboxamide,

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N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-3-yl)-1H-indazole-3-carboxamide,
N ((3S) 1-Azabicyclo[2.2.2]oct 3-yl) 5 (bromo)benzo[d]isothiazole 3-carboxamide,
N-((3S) 1-Azabicyclo[2.2.2]oct 3-yl)-5-methoxybenzo[d]isothiazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)-1H-indazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(furan-3-yl)-1H-indazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(phenyl)-1H-indazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1H-indazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-3-yl)-1H-indazole-3-carboxamide,
N-((3R) 1-Azabicyclo[2.2.2]oct-3-yl)-6-bromobenzo[d]isothiazole-3-carboxamide,
N ((3R) 1-Azabicyclo[2.2.2]oct 3-yl) 6 cyclopropylbenzo[d]isothiazole 3 carboxamide,
N ((3R) 1 Azabicyclo[2.2.2]oct 3 yl) 6 (2-fluorophenyl)benzo[d]isothiazole 3-carboxamide,
N ((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(3-fluorophenyl)benzo[d]isothiazole-3-carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(4-fluorophenyl)benzo[d]isothiazole-3-carboxamide,
N ((3R) 1 Azabicyclo[2.2.2]oct 3 yl) 6 (3 furan 3 yl)benzo[d]isothiazole 3 carboxamide,
N ((3R) 1 Azabicyclo[2.2.2]oct 3 yl) 6 methoxybenzo[d]isothiazole 3 carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct 3-yl)-6-(morpholin 4-yl)benzo[d]isothiazole-3-carboxamide,
N-((3R) 1-Azabicyclo[2.2.2]oct 3-yl)-6-phenylbenzo[d]isothiazole 3-carboxamide.
N ((3R) 1 Azabicyclo[2.2.2]oct 3 yl) 6 (pyridin 3 yl)benzo[d]isothiazole 3 carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl) 6 (pyridin-4-yl)benzo[d]isothiazole-3-carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)benzo[d]isothiazole-3-carboxamide,
N ((3R) 1 Azabicyclo[2.2.2]oct 3 yl) 6 (thiophen 3 yl)benzo[d]isothiazole 3 carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(bromo)-1H-indazole-3-carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(furan-3-yl)-1H-indazole-3-carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(phenyl)-1H-indazole-3-carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)-1H-indazole-3-carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-3-yl)-1H-indazole-3-carboxamide,
N ((3S) 1-Azabicyclo[2.2.2]oct 3-yl) 6-bromobenzo[d]isothiazole-3-carboxamide,
N ((3S) 1 Azabicyclo[2.2.2]oct 3 yl) 6 cyclopropylbenzo[d]isothiazole 3 carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(2-fluorophenyl)benzo[d]isothiazole-3-carboxamide,
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N ((3S) 1 Azabievelo[2.2.2]oct 3 yl) 6 (3 fluorophenyl)benzo[d]isothiazole 3 carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(4-fluorophenyl)benzo[d]isothiazole-3-carboxamide,
N-((3S) 1-Azabicyclo[2.2.2]oct 3 yl) 6 (furan 3-yl)benzo[d]isothiazole 3 carboxamide,
N-((3S) 1-Azabicyclo[2.2.2]oct-3-yl) 6-methoxybenzo[d]isothiazole-3-carboxamide,
N ((3S) 1-Azabicyclo[2.2.2]oct 3-yl) 6 (morpholin 4-yl)benzo[d]isothiazole-3-carboxamide,
N-((3S) 1 Azabicyclo[2.2.2]oct 3-yl) 6-phenylbenzo[d]isothiazole 3-carboxamide,
N ((3S) 1-Azabicyclo[2.2.2]oct 3 yl) 6 (pyridin 3 yl)benzo[d]isothiazole 3 carboxamide,
N ((3S) 1-Azabicyclo[2.2.2]oct-3-yl) 6 (pyridin 4-yl)benzo[d]isothiazole-3-carboxamide,
N-((3S) 1-Azabicyclo[2.2.2]oct-3-yl) 6 (thiophen 2-yl)benzo[d]isothiazole-3 carboxamide,
N ((3S)-1-Azabicyclo[2.2.2]oct-3-yl) 6 (thiophen-3-yl)benzo[d]isothiazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(bromo)-1H-indazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(furan-3-yl)-1H-indazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(phenyl)-1H-indazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)-1H-indazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-3-yl)-1H-indazole-3-carboxamide,
N-((3R) 1-Azabicyclo[2.2.2]oct-3-yl) 7-methoxybenzo[d]isothiazole-3-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct 3-yl)-7-methoxybenzo[d]isothiazole-3-carboxamide,
N-((3R)-1-Azabicyclo[2,2,2]oct-3-yl)-N-(1H-indazol-3-ylmethyl)amine,
N ((3S)-1-Aza-bicyclo[2,2,2]oct-3-yl)-N (1H-indazol-3-ylmethyl)amine,
N-((3R)-1-Aza-bicyclo[2.2.2]oct-3-yl)benzothiazole-4-carboxamide,
N-((3S)-1-Aza-bicyclo[2.2.2]oct-3-yl)benzothiazole-4-carboxamide.
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-4-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)- 1H-indazole-4-carboxamide,
N-(1H-Indazol-4-yl)-1-azabicyclo[2,2,2]oct-3-ylcarboxamide,
N (1-Azabicyclo[2,2,2]oct-3-yl) N (1H-indazol-4-ylmethyl)amine,
N-((3R) 1-Azabicyclo[2,2,2]oct 3-yl)benzothiazole 7-carboxamide,
N-((3S)-1-Azabicyclo[2,2,2]oct-3-yl)benzothiazole-7-carboxamide,
N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-7-carboxamide,
N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-7-carboxamide,
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N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-7-carboxamide, Benzothiazole 4 carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl, (R) Benzothiazole-4-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl, (S) Benzothiazole 4-carboxamide, N-1-aza-bicyclo[2,2,2]oct-3-yl, 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-3-yl, (S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-3-yl, (R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-3-yl, (S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-4-yl, (R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-4-yl, 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-7-yl, (S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-7-yl, (R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, N-1H-indazol-7-yl, 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-4-yl, (S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-4-yl, (R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-4-yl, 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-7-yl. (S) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-7-yl, (R) 1-Aza-bicyclo[2,2,2]oct-3-ylcarboxamide, benzothiazol-7-yl, (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-3-ylmethyl) amine, (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-3-ylmethyl)-amine, (S) (1-Aza bicyclo[2,2,2]oct 3 yl) (1H-indazol-4-ylmethyl)-amine, (R) (1-Aza-bicyclo[2,2,2]oct-3-yl) (1H-indazol-4-ylmethyl)-amine, (1-Aza-bicyclo[2,2,2]oct-3-yl) (1H-indazol-5-ylmethyl)-amine. (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-5-ylmethyl)-amine, (R) (1-Aza-bicyclo[2,2,2]oct-3-yl) (1H-indazol-5-ylmethyl)-amine, (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-6-ylmethyl)-amine, (S) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-6-ylmethyl)-amine, (R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-6-ylmethyl)-amine, (1-Aza-bicyclo[2,2,2]oct-3-yl) (1H-indazol-7-ylmethyl)-amine,

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(S) (1-Aza-bicyclo[2,2,2]oct-3-yl) (1H-indazol-7-ylmethyl)-amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(1H-indazol-7-ylmethyl)-amine,
(1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-4-ylmethyl)-amine,
(S) (1-Aza-bicyclo[2,2,2]oct-3-yl) (benzothiazol-4-ylmethyl)-amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-yl) (benzothiazol-4-ylmethyl) amine,
(1-Aza-bicyclo[2,2,2]oct-3-yl) (benzothiazol-5-ylmethyl) amine,
(S) (1-Aza-bicyclo[2,2,2]oct-3-yl) (benzothiazol-5-ylmethyl) amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-yl) (benzothiazol-5-ylmethyl)-amine,
(1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-6-ylmethyl)-amine,
(S) (1-Aza-bicyclo[2,2,2]oct-3-yl) (benzothiazol-6-ylmethyl) amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-yl)-(benzothiazol-6-ylmethyl)-amine,
(1-Aza-bieyelo[2,2,2]oct-3-yl)-(benzothiazol-7-ylmethyl)-amine,
(S) (1-Aza-bicyclo[2,2,2]oct-3-yl) (benzothiazol-7-ylmethyl)-amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-yl) (benzothiazol-7-ylmethyl)-amine,
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (1H-indazol-3-yl)-amine,
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-3-yl)-amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-3-yl)-amine,
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (1H-indazol-4-yl) amine,
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (1H-indazol-4-yl)-amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-4-yl)-amine,
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (1H-indazol-5-yl) amine,
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-5-yl)-amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-5-yl)-amine,
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (1H-indazol-6-yl)-amine,
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (1H-indazol-6-yl) amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (1H-indazol-6-yl)-amine,
(1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-7-yl)-amine.
(S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl)-(1H-indazol-7-yl)-amine,
(R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (1H-indazol-7-yl) amine,
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- (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-4-yl) amine, (S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-4-yl) amine, (R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-4-yl) amine, (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-5-yl) amine, (S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-5-yl) amine, (R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-5-yl) amine, (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-6-yl) amine, (S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-6-yl) amine, (R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-6-yl) amine, (S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-7-yl) amine, (S) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-7-yl) amine, (R) (1-Aza-bicyclo[2,2,2]oct-3-ylmethyl) (benzothiazol-7-yl) amine, and pharmaceutically acceptable physiological salts thereof.
- 22. (Previously Presented): A pharmaceutical composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier.
- 23. (Currently Amended): A method of selectively activating/stimulating  $\alpha$ -7 nicotinic receptors in a mammal wherein such activation/stimulation has a therapeutic effect, comprising administering to a mammal an animal in need thereof an effective amount of a compound according to claim 1.
- 24. (Previously Presented): A method of treating a patient suffering from psychotic diseases, neurodegenerative diseases involving a dysfunction of the cholinergic system, and conditions of memory and/or cognition impairment comprising administering to the patient an effective amount of a compound according to claim 1.
- 25. (Previously Presented): A method of treating a patient suffering from dementia and other conditions with memory loss comprising administering to the patient an effective

amount of a compound according to claim 1.

- 26. (Currently Amended): A method of treating a patient suffering from memory impairment due to mild cognitive impairment due to aging, Alzheimer's disease, schizophrenia, Parkinson's disease, Huntington's disease, Pick's disease, Creutzfeldt-Jakob Creutzfeld-Jakob disease, depression, aging, head trauma, stroke, CNS hypoxia, cerebral senility, or multiinfarct dementia comprising administering an effective amount of a compound according according to claim 1.
- 27. (Previously Presented): A method of treating and/or preventing dementia in an Alzheimer's patient comprising administering to the patient a therapeutically effective amount of a compound according to claim 1 to inhibit the binding of an amyloid beta peptide with nAChRs.
- 28. (Previously Presented): A method of treating a patient for alcohol withdrawal or treating a patient with anti-intoxication therapy comprising administering to the patient an effective amount of a compound according to claim 1.
- 29. (Previously Presented): A method of treating a patient to provide for neuroprotection against damage associated with strokes and ischemia and glutamate-induced excitotoxicity comprising administering to the patient an effective amount of a compound according to claim 1.
- 30. (Previously Presented): A method of treating a patient suffering from nicotine addiction, pain, jetlag, obesity and/or diabetes, or a method of inducing smoking cessation in a patient comprising administering to the patient an effective amount of a compound according to claim 1.
  - 31. (Previously Presented): A method of treating a patient suffering from mild MEMORY-33

cognitive impairment (MCI), vascular dementia (VaD), age-associated cognitive decline (AACD), amnesia associated with open-heart-surgery, cardiac arrest, general anesthesia, memory deficits from exposure to anesthetic agents, sleep deprivation induced cognitive impairment, chronic fatigue syndrome, narcolepsy, AIDS-related dementia, epilepsy-related cognitive impairment, Down's syndrome, Alcoholism related dementia, drug/substance induced memory impairments, Dementia Puglistica (Boxer Syndrome), or animal dementia comprising administering to the patient an effective amount of a compound according to claim 1.

- 32. (Previously Presented): A method of treating a patient suffering from a disease state involving decreased nicotinic acetylcholine receptor activity comprising administering to the patient an effective amount of a compound according to claim 1.
- 33. (Previously Presented): A method for the treatment or prophylaxis of a disease or condition resulting from dysfunction of nicotinic acetylcholine receptor transmission in a mammal comprising administering to the mammal an effective amount of a compound according to claim 1.
- 34. (Previously Presented): A method for the treatment or prophylaxis of a disease or condition resulting from defective or malfunctioning nicotinic acetylcholine receptors in a mammal comprising administering to the mammal an effective amount of a compound according to claim 1.
- 35. (Previously Presented): A method for the treatment or prophylaxis of a disease or condition resulting from suppressed nicotinic acetylcholine receptor transmission in a mammal comprising administering to the mammal an effective amount of a compound according to claim 1.
- 36. (Previously Presented): A method for the treatment or prophylaxis of a disease or condition resulting from loss of cholinergic synapses in a mammal comprising administering to

the mammal an effective amount of a compound according to claim 1.

- 37. (Previously Presented): A method of treating a patient suffering from inflammation comprising administering to the patient an effective amount of a compound according to claim 1.
- 38. (Previously Presented): A compound according to claim 21, wherein said compound is in the form of a hydrochloride or hydroformate salt.
- 39. (Currently Amended): A compound according to claim 38, wherein said compound is selected from:
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)benzo[d]isothiazole-3-carboxamide hydrochloride,
- N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)benzo[d]isothiazole-3-carboxamide hydrochloride,
- N-(-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-3-carboxamide hydrochloride,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-3-carboxamide hydrochloride,
- N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-3-carboxamide hydrochloride,
- N ((3R) 1-Azabicyclo[2.2.2]oct-3-yl) 5 (methoxy)benzo[d]isothiazole-3 carboxamide hydroformate,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(cyclopropyl)-1H-indazole-3-carboxamide hydroformate,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(furan-3-yl)-1H-indazole-3-carboxamide hydroformate,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(phenyl)-1H-indazole-3-carboxamide hydroformate,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1H-indazole-3-carboxamide hydroformate,
- N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-3-yl)-1H-indazole-3-carboxamide hydroformate,
- N-((3S)-1-Azabieyelo[2.2.2]oct-3-yl)-5-methoxybenzo[d]isothiazole-3-carboxamide hydroformate,
- N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(furan-3-yl)-1H-indazole-3-carboxamide hydroformate,
- N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(phenyl)-1H-indazole-3-carboxamide hydroformate,

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1H-indazole-3-carboxamide hydroformate,

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-3-yl)-1H-indazole-3-carboxamide hydroformate,

N ((3R) 1-Azabicyclo[2.2.2]oct-3-yl) 6 (2-fluorophenyl)benzo[d]isothiazole-3-carboxamide hydroformate,

N ((3R) 1-Azabicyclo[2.2.2]oct-3-yl) 6 (3 fluorophenyl)benzo[d]isothiazole-3 carboxamide hydroformate,

N ((3R) 1 Azabicyclo[2.2.2]oct-3-yl) 6 (4 fluorophenyl)benzo[d]isothiazole-3-carboxamide hydroformate,

N ((3R) 1 Azabicyclo[2.2.2]oct 3 yl) 6 (3 furan 3 yl)benzo[d]isothiazole 3 carboxamide hydroformate,

N-((3R) 1-Azabicyclo[2.2.2]oct-3-yl)-6-(morpholin-4-yl)benzo[d]isothiazole-3-carboxamide hydroformate,

N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-phenylbenzo[d]isothiazole-3-carboxamide hydroformate,

N ((3R) 1-Azabicyclo[2.2.2]oct-3-yl) 6 (pyridin-3-yl)benzo[d]isothiazole-3-carboxamide hydroformate.

N ((3R) 1 Azabicyclo[2.2.2]oct 3-yl) 6 (pyridin 4-yl)benzo[d]isothiazole 3 carboxamide hydroformate,

N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(furan-3-yl)-1H-indazole-3-carboxamide hydroformate,

N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(phenyl)-1H-indazole-3-carboxamide hydroformate,

N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)-1H-indazole-3-carboxamide hydroformate,

N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-3-yl)-1H-indazole-3-carboxamide hydroformate,

N ((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(2-fluorophenyl)benzo[d]isothiazole-3-carboxamide hydroformate,

N ((3S) 1 Azabicyclo[2.2.2]oct 3 yl) 6 (3 fluorophenyl)benzo[d]isothiazole 3 carboxamide hydroformate,

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(4-fluorophenyl)benzo[d]isothiazole-3-carboxamide hydroformate,

N ((3S) 1 Azabicyclo[2.2.2]oct 3 yl) 6 (furan 3 yl)benzo[d]isothiazole 3 carboxamide hydroformate;

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6 (morpholin-4-yl)benzo[d]isothiazole-3-carboxamide hydroformate,

N ((3S) 1 - Azabicyclo[2.2.2]oct - 3 yl) 6 - phenylbenzo[d]isothiazole - 3 - carboxamide hydroformate,

N ((3S)-1-Azabicyclo[2.2.2]oct-3-yl) 6 (pyridin 3-yl)benzo[d]isothiazole-3-carboxamide hydroformate,

N ((3S) 1-Azabicyclo[2.2.2]oct-3-yl) 6 (pyridin 4-yl)benzo[d]isothiazole-3-carboxamide hydroformate;

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)benzo[d]isothiazole-3-carboxamide hydroformate,

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(furan-3-yl)-1H-indazole-3-carboxamide hydroformate,

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(phenyl)-1H-indazole-3-carboxamide hydroformate,

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-2-yl)-1H-indazole-3-carboxamide hydroformate,

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-6-(thiophen-3-yl)-1H-indazole-3-carboxamide hydroformate,

N ((3R) 1-Aza-bicyclo[2.2.2]oct-3-yl)benzothiazole 4-carboxamide dihydrochloride,

N ((3S) 1-Aza-bicyclo[2.2.2]oct 3-yl)benzothiazole 4-carboxamide dihydrochloride,

N ((3R)-1-Azabicyclo[2,2,2]oct-3-yl)benzothiazole-7-carboxamide hydrochloride,

N ((3S) 1- Azabicyclo[2,2,2]oct 3-yl)benzothiazole 7-carboxamide hydrochloride,

N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-7-carboxamide hydrochloride, and

N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-7-carboxamide hydrochloride.

- 40. (Cancelled):
- 41. (Cancelled):

42.	(Cancelled):
43.	(Cancelled):
44.	(Cancelled):
45.	(Cancelled):
46.	(Cancelled):
47.	(Cancelled):

- 48. (New): A compound according to claim 21, wherein said compound is N-(1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 49. (New): A compound according to claim 48, wherein said compound is N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 50. (New): A compound according to claim 48, wherein said compound is N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 51. (New): A compound according to claim 21, wherein said compound is N-(1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.

- 52. (New): A compound according to claim 51, wherein said compound is N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 53. (New): A compound according to claim 51, wherein said compound is N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(bromo)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 54. (New): A compound according to claim 21, wherein said compound is N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(cyclopropyl)-1H-indazole-3-carboxamide carboxamide or a pharmaceutically acceptable salt thereof.
- 55. (New): A compound according to claim 21, wherein said compound is N-(1-Azabicyclo[2.2.2]oct-3-yl)-5-(furan-3-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 56. (New): A compound according to claim 55, wherein said compound is N-((3*R*)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(furan-3-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 57. (New): A compound according to claim 55, wherein said compound is N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(furan-3-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 58. (New): A compound according to claim 21, wherein said compound is N-(1-Azabicyclo[2.2.2]oct-3-yl)-5-(phenyl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
  - 59. (New): A compound according to claim 58, wherein said compound is N-((3R)-1-MEMORY-33

Azabicyclo[2.2.2]oct-3-yl)-5-(phenyl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.

- 60. (New): A compound according to claim 58, wherein said compound is N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(phenyl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 61. (New): A compound according to claim 21, wherein said compound is N-(1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 62. (New): A compound according to claim 61, wherein said compound is N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 63. (New): A compound according to claim 61, wherein said compound is N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-2-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 64. (New): A compound according to claim 21, wherein said compound is N-(1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-3-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 65. (New): A compound according to claim 64, wherein said compound is N-((3R)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-3-yl)-1H-indazole-3-carboxamide or a pharmaceutically acceptable salt thereof.
- 66. (New): A compound according to claim 64, wherein said compound is N-((3S)-1-Azabicyclo[2.2.2]oct-3-yl)-5-(thiophen-3-yl)-1H-indazole-3-carboxamide or a pharmaceutically

acceptable salt thereof.